

REMARKS

The undersigned attorney thanks Examiner Goins for the time expended in a September 27, 2001 telephone interview. The pending claims of the application were discussed, as was the likelihood of an interference between this application and the Miller et al. U.S. Patent No. 6,130,614, granted October 10, 2000.

In accordance with the Examiner's request, Applicants provide herewith a copy of provisional application Serial No. 60/131,189 which is the basis for a priority claim for the present application.

Also, as discussed with the Examiner, Applicants have amended claims 1 and 27-30 to clarify that the invention concerns detecting a respiring human being or other living organism in the closed trunk or compartment of a vehicle. Claims 16 and 19 have been amended to clarify the novel method for detecting CO₂ from respiration of a living organism in an enclosure. Claims 5-7 have been amended to make reference to a lighted switch within the trunk that may be manually activated to open the trunk from the inside. Claim 21 is amended to correct an error in dependency.

Claims 31-43 have been substantially copied from corresponding claims 1-8, 10, 12, and 14-16 of the Miller et al. patent in order to demonstrate that an interference between Miller et al. and this application is required. Applicants request that an interference be declared with the Miller et al. patent and hereby provoke an interference with method and apparatus counts. The request for an interference and copying of Miller et al. claims are prior to the October 10, 2001 anniversary of grant of the Miller et al. patent. The fee for adding additional claims is submitted

with this Amendment. Following is a summary of the proposed counts for the Miller et al.

Patent No. 6,130,614.

Count 1 is for detecting the respiration of a living organism, for example a person, in the closed trunk of a vehicle. Independent method claims 28, 30 and apparatus claims 40 and 42 of this application correspond to this count. As an example, this invention is disclosed at page 2, lines 1-12; page 3, lines 25-32 and page 4, lines 1-4 of the specification of this application. Independent claims 12 and 15 of Miller et al. correspond to this Count 1.

Count 2 is for detecting the respiration of a living organism, for example a person, in the closed trunk of a vehicle and automatically opening the trunk. Independent method claim 29 and apparatus claim 31 of this application correspond to this count. As an example, this invention is disclosed in the specification of this application at page 2, lines 1-12; page 5, lines 14-32; page 6, lines 1-32; and page 7, lines 1-29. Independent claim 1 of Miller et al. corresponds to Count 2.

Count 3 is for detecting the respiration of a living organism, for example a person, and opening the trunk in response to an operational condition of the vehicle, for example if the vehicle is not moving or the ignition is turned off. Independent method claims 1, 27 and apparatus claims 31/34 and 40/41 of this application correspond to this count. As an example, this invention is disclosed in the specification of this application at page 2, lines 1-12; page 7, lines 30-32; and page 8, lines 1-28. Independent Miller et al. claims 1/4 and 12/14 correspond to Count 3.

Count 4 is for detecting a baseline CO₂ in the trunk of a vehicle, comparing this baseline to the measured increase of CO₂ due to respiration and generating a rescue event if the respiration of a person is detected. Independent method claims 16, 22 and apparatus claims 20

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and 31/37 of this application correspond to this count. As an example, this invention is disclosed in the specification of this application at page 2, lines 1-12; page 3, lines 25-32; and page 4, lines 1-4. Independent Miller et al. claim 1/7 corresponds to Count 4.

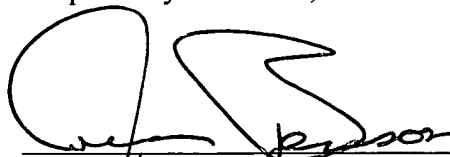
Applicants have also submitted an Information Disclosure Statement and a check under 37 CFR § 1.17(p) for submission of this Statement. This Statement includes references that were recently obtained by the undersigned attorney and that were cited in prosecution of the Miller et al. patent and in a corresponding PCT application. Applicants were not able to obtain copies of publications cited in prosecution of Miller et al.

The undersigned attorney thanks Examiner Goins for her expenditure of time in reviewing this application and requests a Notice of Allowability for all pending claims.

The Commissioner is authorized to charge any additional fees that may be required, including an extension fee or fee for adding claims, or to credit any overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

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APPENDIX A

1. (Twice Amended) A method for monitoring the trunk of a vehicle, comprising the steps of:

detecting the presence of a respiring living organism in the closed trunk of a vehicle;

detecting the operational condition of the vehicle; and

automatically opening the trunk of the vehicle in response to a predefined safe operational condition of the vehicle and the detection of the living organism in the trunk.

5. (Amended) The method of claim 1, further including the steps of providing a lighted switch in the trunk; and having a person in the trunk manually activate the switch to open the trunk from the inside. [wherein said step of detecting the presence of a living organism includes the step of detecting the movement of the organism in the trunk of the vehicle.]

6. (Amended) The method of claim 17, further including the steps of providing a lighted switch in the trunk; and having a person in the trunk manually activate the switch to open the trunk from the inside. [1, wherein said step of detecting the presence of a living organism includes the step of detecting the infrared emissions of the organism.]

7. (Amended) The [method] apparatus of claim 20, including a lighted switch disposed in the trunk for manually opening the trunk from the inside. [1, wherein said step of detecting the presence of a living organism includes the step of detecting the change in electrostatic charge produced by the organism.]

16. (Twice Amended) A method for determining the presence of a [person] living organism in an enclosure, comprising the steps of:

ventilating the enclosure to ambient air and automatically sensing a base line concentration of CO₂ in the vented enclosure; [with at least one opening to ambient air;]

closing the enclosure to ambient air and automatically sensing an increase in the concentration of CO₂ above said base line concentration for a predetermined time after [when] the enclosure is closed to ambient air; and

providing a rescue operation [generating an alarm] in response to detecting CO₂ above said base line concentration which is consistent with what would be produced by respiration of a [person] living organism in the closed enclosure.

19. (Amended) The method of claim 16, [wherein said step of determining includes the steps of: detecting a base line concentration of CO₂ after the enclosure is opened; comparing the concentration of CO₂ measured for a time after the enclosure is closed to the base line concentration of CO₂; and] further including the step of detecting the presence of a [person] living organism when the concentration of CO₂ in the closed enclosure exceeds the base line concentration of CO₂ by a predetermined amount for a predetermined time.

21. (Amended) The apparatus of claim [19] 20, including means for sensing the movement of the vehicle and means for opening the trunk when a person is sensed in the trunk and the vehicle is stopped.

27. (Amended) A method for controlling a vehicle having a compartment that is opened and closed, comprising the steps of:

detecting the presence of a respiring living organism in the closed compartment of the vehicle;

detecting the operational condition of the vehicle; and

automatically opening the compartment of the vehicle to ambient air in response to a predefined operational condition of the vehicle and the detection of the living organism in the compartment.

28. (Amended) A method for controlling a vehicle having a trunk that is opened and closed, comprising the steps of:

detecting the presence of a respiring living organism in the closed trunk of the vehicle;

detecting the operational condition of the vehicle;

automatically selecting at least one of a plurality of alarms based upon the operational condition of the vehicle and the detected presence of the living organism in the trunk; and

activating the at least one selected alarm.

29. (Amended) A method for controlling a vehicle having a trunk that is selectively opened and closed, comprising the steps of:

detecting the presence of a respiring living organism in the closed trunk of the vehicle; and

automatically opening the trunk in response to at least detecting the living organism in the trunk.

30. (Amended) A method for detecting an unsafe condition within a trunk of a vehicle, comprising the steps of:

disposing [locating] a living organism within [in] the closed trunk of the vehicle; and

detecting the respiration [at least one bodily function] of the living organism in the trunk.

--31. A detection system for use within a vehicle of the type having a trunk which is selectively movable between an open and a closed position, said detection system being adapted to detect the presence of a breathing individual within said trunk, said detection system comprising:

a breathing detector which is disposed within said trunk, which is adapted to detect the breathing of said individual, and which generates a signal upon the detection of said breathing; and

a controller assembly which is communicatively coupled to said breathing detector, which receives said signal, and which opens said trunk upon receipt of said signal.--

--32. The detection system of claim 31, wherein carbon dioxide is emitted by said individual as said individual breathes and wherein said breathing detector detects the presence of said carbon dioxide within said trunk.--

--33. The detection system of claim 31, wherein said vehicle is of the further type which includes an ignition switch which may be selectively moved to a certain position and wherein said controller assembly is coupled to said ignition switch, senses said placement of said ignition switch in said certain position, and causes said trunk to be opened in response to said signal from said breathing detector only if said ignition switch is placed in said certain position.--

--34. The detection system of claim 31, wherein said vehicle is of the type which is selectively driven and wherein said controller assembly prevents said trunk from being open when said vehicle is driven.--

--35. The detection system of claim 31, further including an illuminated switch which is disposed within said trunk, which is coupled to said controller assembly, and which selectively communicates a second signal to said controller assembly upon being touched.--

--36. The detection system of claim 35, wherein said controller assembly, upon receipt of said second signal, opens said trunk.--

--37. The detection system of claim 32, wherein said breathing detector measures the amount of carbon dioxide which is resident within said trunk, stores a certain value, compares said measured amount of carbon dioxide to said certain value, and generates said signal only if said measured amount of said carbon dioxide is greater than said certain value.--

--38. The detection system of claim 31, wherein said controller assembly further includes a timer which allows said detection system to be operable for a certain period of time.--

--39. The detection system of claim 31, wherein said individual comprises a child.--

--40. (New) A method for detecting the presence of a child within a trunk of a vehicle, said method comprising the steps of:

measuring an amount of carbon-dioxide within said trunk of said vehicle; and
using said measured amount of carbon dioxide to determine the presence of
said child within said trunk of said vehicle.--

--41. The method of claim 40, further comprising the step of detecting said presence of said child only when said vehicle is stationary.--

--42. An assembly for detecting the presence of an individual within a trunk of a vehicle, said assembly comprising:

a sensor which is mounted within said trunk and that detects the occurrence of at least one bodily function of said individual; and

a controller assembly which is communicatively coupled to said sensor and which provides a signal when said sensor detects the occurrence of at least one bodily function of said individual, wherein said at least one bodily function comprises breathing.--

--43. The assembly of claim 42, wherein said sensor comprises a carbon dioxide sensor.--